

LYCIANTHES ASARIFOLIA (SOLANACEAE)
NEW AND WEEDY IN TEXAS

In July of 1997 an unknown plant was collected in Houston and sent to Texas A&M for identification. It proved to be *Lycianthes asarifolia* (Kunth & Bouché) Bitter, a member of the Solanaceae native to South America. This species has been previously known in North America only from New Orleans, Louisiana (Darwin & Feibelman 1991). De Rojas and D'Arcy (1997) incorrectly cited that collection as being from Texas.

This species is recognizable by its prostrate habit, having slender stolons that root at every node. The leaves are strongly cordate, entire, and long-petioled. Sometimes a second leaf is produced at non-flowering nodes: if the primary leaf is relatively large, the second leaf is usually small and often stipule-like; when the primary leaf is relatively small, the second is often nearly the same size. The flowers are white, rotate, and ca. 1.5 cm broad. The yellow anthers are connivent around the style and poricidally dehiscent. The fruit is an edible reddish-orange berry ca. 1.3 cm in diameter, closely subtended by the truncate calyx. Plants are self-infertile (Dean 1997). A good illustration can be found in the article by De Rojas and D'Arcy and images of the Houston plants can be seen at Texas A&M's Bioinformatics Working Group Image Gallery page (<http://www.csdl.tamu.edu/FLORA/imaxsol.htm>). Note that the leaves of the Houston plants are nearly all rounded apically rather than pointed as in the article illustration.

A visit to the collection site revealed that this plant has overrun several residential yards in Houston, forming a dense, attractive ground cover in shaded areas. It is apparently reproducing both vegetatively and sexually, for numerous flowers and immature fruits were seen in early December 1997 and mature fruits were collected in March 1998. (Darwin and Feibelman found no fruit in the Louisiana population and none has since been seen on plants grown from cuttings taken from that population.) The authors also suspect that propagules are being carried from yard to yard on the equipment of landscape maintenance companies. The exact time and point of introduction is not known, but the population has been in existence for three or more years. Residents' attempts to control the plant by hand-pulling, mowing, herbicide application, and removal of infested sod have proved unsuccessful. It appears to be tolerant of Houston's winter weather and suffers only partial dieback during the hottest summer days. Should this plant become established in nearby Memorial Park (a large, wooded area), it could be nearly impossible to eradicate. Herbicide trials were begun in one of the Houston yards in March of 1998. After two rounds of tests, no treatment has pro-

vided complete control, and treatments which have weakened the *Lycianthes* have also damaged the surrounding turf.

It is possible that this plant could become a noxious weed in southern Texas. The USDA Animal and Plant Health Inspection Service is conducting a formal risk assessment. (The Louisiana Department of Agriculture has considered surveying for the plant in the New Orleans area.) The authors encourage identification, documentation, and destruction of any new colonies subsequently discovered. Should other populations of this plant be found, please contact one of the authors.

Voucher specimen: U.S.A. TEXAS. Harris Co.: Houston, shaded residential yard of 502 Lindenwood, with *Quercus virginiana*, *Pinus*, *Stenotaphrum secundatum*, and *Trachelospermum* in moist sandy loam, 6 Dec 1997, Mary Ketchersid 120697-A (BH, BRIT, MO, NO, NY, TAES, TAMU, TEX, US, WAVI).

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